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Cooperative efforts with other agencies reinforce the extension program with low-income families. (1) A Farm Security client welcomes a visit from the home demonstration agent. (2) A cotton-matress work center is a good place to discuss

gardens, foods, and many other things. (3) School children enjoy a lunch sponsored by extension organizations under the SMA program. (Cover) A grubstake provided by a Wisconsin family, one of those described on the opposite page.

A Special Number Which Records Work With Low-Income Farm Families

It is going to require a tremendous effort on the part of agricultural leaders everywhere to make what I call "agricultural adjustment" to meet the loss of exports and *to help long-neglected, underprivileged farm people*. The land-grant college agencies, particularly the Extension Service, must lead in this educational program. Farm organizations must join in the educational effort. The AAA, land use planning, and all other farm committees must do their share in bringing these problems before all farm people.—*Secretary Claude R. Wickard.*

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EXTENSION SERVICE, U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C. • M. L. WILSON, Director • REUBEN BRIGHAM, Assistant Director

Making a Grubstake

**W. H. DOUGHERTY, County Agricultural Agent,
Washburn County, Wis.**

■ The "Grubstake" is a program intended for every rural person and family regardless of financial or social standing. The general program is the "producing of a year-round balanced food supply, consisting of about 60 percent meats, animal fats, and other items of animal origin; and approximately 40 percent vegetables and fruits." In reality, this plan results in a food insurance policy which is working successfully for many families in Washburn County.

The grubstake was started because the population and expenses in the county have been increasing during the past several years. The valuation of the county at the same time has been dropping until at present it is about one-half the valuation prior to 1930. About 35 percent of all the land in the county has been taken off the tax roll due to tax delinquency. Many of the farmers have been going behind \$100 to \$200 per year. Others disposed of their livestock to become eligible for some Federal help. Records show that one of the first items asked for has been food. Retailers have informed us that large numbers of rural checks were spent for corn, potatoes, peas, and beans; and yet these people lived on the land.

To remedy these conditions the grubstake program was developed to give special consideration to those wanting to do something for themselves.

After thorough discussion, the county board, planning board, and agricultural committee made grubstake the No. 1 plan for all county agencies. All field workers and organizations were directed to emphasize the grubstake program in the county. A meeting was called, and representatives of the following agencies were asked to attend: 4-H Clubs, homemakers' clubs, Farm Security Administration, county officials, ministers, agriculture and home economics instructors, county superintendent of schools, relief, WPA, county nurse, chamber of commerce,

fisheries, forest protection, AAA, veterans' service, Boy and Girl Scouts, railroad, and Farmers' Equity Union.

A Washburn County pamphlet was compiled and printed for distribution to all rural families by all agencies and all county field workers. This pamphlet was made up of charts and other information relative to producing a sufficient food supply.

To introduce the grubstake plan, several news articles, featuring what people could do for themselves, were published in the county papers. Several meetings were held in different parts of the county, and talks were given at community clubs, homemakers' meetings, 4-H, and other group meetings. Several farm and home visits were made by all field workers.

Following up this initial effort, seasonal news articles regarding time of planting, insect control, and food preservation and storage were sent to the county papers. Bimonthly meetings were held during the summer by the field workers for suggestions and discussion as to problems arising. The fair premium list was revised to help in the educational work, stressing the grubstake. The plan was incorporated in the farm field day at the Spooner Experimental Station last fall. Several extension specialists have visited the county and helped on food storage and food preservation. Pictures and questionnaires were gathered by field workers while making home visits. Radio broadcasts were given during the summer and fall.

Coordination of all agencies was one secret of our success. The county agent directed activities and called meetings of the groups at regular intervals to keep an active organization.

The results exceeded our expectation. An indication is seen in a summary of 95 reports from only a portion of the farm families who provided a grubstake. These families canned an average of 58.7 quarts per person, stored

8 bushels of fresh food, provided 99.2 pounds of meat, and used 20.1 dozen eggs per person. Each family kept 29.6 chickens for eggs, grew a little more than ½-acre garden, and consumed almost 52 gallons of milk. The average cash value of the grubstake was \$181.35, whereas the average cost of seeds per family was only \$2.80.

This year the grubstake program is again being featured in 4-H and homemakers' work throughout the county, as well as in the high schools where Smith-Hughes and home economics teachers are employed.

The results in the Farm Security families have been exceptionally good. The Farm Security Administration, whose plans were so successful in 1940, is again making the grubstake an important part of their work for 1941.

The county superintendent has cooperated to the fullest extent, and material has been sent out to all rural school teachers for the teaching of the grubstake unit.

Several hundred fruit trees and other items, such as rhubarb and asparagus, have been ordered by individuals cooperatively pooling orders in the county agent's office.

The grubstake of one cooperating family of five people—three adults and two children, age 8 and 10 years—gives some idea of what was accomplished. This family provided plenty of milk, cream, and butter; owned a 1-year-old steer, 2 hogs, 20 roosters, and 25 hens for eggs; and had 7 gallons of lard stored. They canned 120 quarts of tomatoes, 111 quarts of vegetables, 295 quarts of fruits, and 10 gallons of sauerkraut, together with jams, jellies, and pickles. In addition, they stored 1½ bushels of dried beans, 2 bushels of parsnips, 50 head cabbage, 3 bushels of carrots, 50 squash (both Acorn and Hubbard), 2 bushels of rutabagas, ½ bushel of beets, 20 pounds of dried corn, 1 bushel of onions, 25 bushels of potatoes, 2 bushels of sweetpotatoes, 1 peck of peanuts, 1 bushel of butternuts, 4 gallons of sorghum, and 6 bushels of dried apples.

This grubstake, including both wood for fuel and food, is valued at not less than \$400. Wild fruits and nuts gathered helped to round out their grubstake. Besides the food supply, a calf is being raised which will be sold later and the proceeds used to pay for dental care and a needed tonsillectomy.

Adventuring Into New Gardens

**ORENE McCLELLAN, County Home Demonstration Agent,
Dallas County, Tex.**

■ Are we reaching all the people? Are we getting the best results from our efforts? How are our plans for 1941 working out? Do we need to revise them now that we have had time to try some of them? These are the questions we Dallas County extension agents asked ourselves and each other when we came together in January to review our carefully laid plans for 1941—plans made last fall with the help of our county land-use planning committee and the county 4-H Club and home demonstration councils.

Each of us was quite sure that some part of every demonstration we plan and give is a challenge to every person who sees it. We felt, too, that we have always worked with low-income people because many of our club members are from such families. J. O. Woodman, our assistant county agricultural agent, said that of the 910 boys enrolled in 4-H Club work, 53 are from families whose chief support is the WPA. In the 1940 cotton mattress demonstration program, Juanita Urban, assistant county home demonstration agent, found that 253 of the 810 4-H Club girls enrolled came from families with a cash income of less than \$400 in 1939.

Can an Agent Do More

"Every family has the opportunity to obtain help from the county extension agents," we told ourselves. "Aren't we doing all we can? Aren't the hours of the day and night enough time to devote to our jobs?" We agreed that it takes more detailed work, more individual assistance to help the low-income family which has not been reached through organizations. We agreed also that there are many demands on our time. Excuses. Good ones, too! All of them. But whose was the responsibility to give help? To have faith in those who had never availed themselves of the services offered by community groups? Unquestionably, it was ours—the four extension agents in Dallas County—A. B. Jolley, county agricultural agent; Mr. Woodman; Miss Urban; and I.

We were still faced with the question: "What can we do that we aren't already doing?" Mr. Jolley and Miss Urban get the credit for a suggestion that ended in our "starting at rock bottom," to quote Secretary of Agriculture Claude R. Wickard. The suggestion was that we plan garden demonstrations designed to reach low-income farm families in every community of the county.

Already, in the cotton mattress demon-

stration program in 1940, had come the startling revelation that some 1,200 farm families in the county received a cash income for 1939 of \$400 or less. Further figures, equally startling, showed that about 65 percent of this group had never taken advantage of any of the many services offered by agricultural agencies in the county. Since figures from the Extension Service of the Texas Agricultural and Mechanical College show that approximately \$600 per year is the minimum amount necessary to provide food for a Texas family of five (subject to change in food prices), it seemed evident that families with not more than \$400 a year to provide food, shelter, and clothing must undoubtedly be below par physically.

We based our approach on the home production of more and better food, realizing that a healthy body breeds a healthy mind and that from a healthy mind comes the ability of the individual to think, plan, and improve his own surroundings.

It was a simple matter to obtain the cooperation of local seed companies and nurseries when we presented to them our plan of beginning 41 garden and orchard demonstrations in as many small communities of Dallas County. They furnished seed and trees, and a machinery company contributed money to buy covers for the 41 frame gardens.

The demonstrators were selected by the agents in cooperation with local community leaders. Some of the families selected were families of 4-H Club members; a few included members of home demonstration clubs; but most of them had never been reached by any organized extension group. Several were families depending almost entirely upon the WPA for employment.

In all, about 75 families were visited in selecting the 41 demonstrators. At this first visit the agents explained the purpose of the demonstration and helped the families work out plans for developing the demonstration. The garden and orchard sites were selected, the frame garden located, and instructions given for further preparation so that everything would be in readiness for the return visit of the agents.

The responsibility of the demonstrator family was fourfold—have one half-acre garden fertilized, plowed, and ready to plant; have a frame garden (4 feet by 20 feet by 12 inches) made and ready to plant; have holes dug for fruit trees; ask 8 or 10 neighbors to attend the planting demonstration.

The agents, with the local merchants co-

operating, promised to bring a cover for the frame garden, 14 packages of garden seed, 8 fruit trees, and 6 berry vines.

In almost every family we visited we found evidences of the ill effects of insufficient food or ignorance of foods necessary to a good diet. Many were sick. One man had just been advised to take vitamin capsules which cost \$4 per 100, and his family had to economize on groceries to pay these medicine bills. The unawareness of so many families that food has a relation to health or disease was almost unbelievable.

We had cooperation from almost everyone but the weatherman. For example, we found ducks swimming in one frame garden! The day before our visit the family had dug the soil out to a depth of 8 or 10 inches, planning to fill the space the next day with better soil. During the night, rain filled the frame.

Bad Weather Didn't Stop Us

But in spite of wet and cold weather, the demonstrations were held on schedule during the last week in February with a total of 256 farm men and women attending. We could not plant the seeds in every instance, but we actually carried out as much of the method demonstration as possible. Sometimes we could only tack the cover on the frame garden.

When we could do no planting we went ahead with discussion of such topics as food requirements for maintenance of health, supplementing the regular garden with the frame garden, planting the gardens with a continuous supply of fresh vegetables, the varieties of vegetables to plant and when and how to plant seeds, selection of the orchard site, varieties of fruit trees to plant, and when and how to plant them.

The four agents working in pairs spent 5 days in selecting the demonstrators and 5½ days in giving the demonstration, and we all feel that the demonstrations were well worth the time we spent. During that time we were in the homes of 20 families that none of us had visited before. We plan to keep in touch with these families and visit them as often as we can when we are in their communities. A follow-up demonstration on food preservation is to be our next venture in spreading the extension program to low-income families in Dallas County.

Only in a few cases did the demonstrators fail to fulfill their requirements, and the weather was responsible for this. We were really surprised at the number of people who attended the demonstrations. The demonstrators were disappointed that many of their neighbors who had planned to come were not there. One explanation typical of all was: "I'm sure they just thought we couldn't plant a garden in this weather. We really didn't expect you."

One man walked down a half-mile muddy lane to a gravel road to warn us not to

attempt that stretch in the car. To his surprise, we picked up the trees, the seed, and other essentials and started down the lane to his home, lifting pounds of black mud with each step. Even though this was a demonstration for two, it was one of the most satisfying home visits we had ever made. When we left, the man said: "Well, if you folks can't come back again, we'll just go ahead and invite our neighbors and give the demonstration ourselves."

Miss Urban says of her experience: "The families we visited seemed to appreciate our thinking that they could do what we asked them to do. Confidence in themselves is one of the big things we need to help them develop, and I think the families fully realized we were working with them because we wanted to—that we were not there to check up on what they didn't have."

A bit of home improvement resulted from our work with one family—a WPA worker's family. When we went the second time to give a demonstration, every floor in the house had been scrubbed, the windowpanes had been washed, and three rooms had been ceiled with cardboard boxes and papered with building paper.

Organized expansion work of home demon-

stration clubs is another means we have of spreading the influence of demonstration teaching. The 1941 expansion program calls for the home demonstration clubs to place simple, timely exhibits in each of the 18 white mattress-making centers in the county. These exhibits will be devoted to the production, preparation, and preservation of the home food supply. Among the displays suggested by the exhibits committee of the county home demonstration council are posters suggesting varieties of seed for planting, canned fruits and tomatoes which do not require use of a pressure cooker, dried fruits and vegetables with simple home-constructed driers and directions for drying.

Doors of many additional homes have been opened to extension workers in the county by the mattress program, and we must accept these opportunities. Every time I drive by a home and see a mattress getting its quota of sunshine, I feel that is my invitation to stop for a visit. My schedule includes time for at least four such visits a week for the remainder of this year. With each visit I hope to offer a little inspiration, as well as information to the family. At the same time I shall be adding to my own understanding of all rural families in Dallas County.

Serving the Surplus to the School Children

■ Lists of available surplus commodities with recipes for using the food products have been sent each month to all Massachusetts home demonstration agents by Nutrition Specialist May E. Foley, with the result that nearly every county extension service is doing something on the surplus commodities program. Working hand in hand with the WPA school lunch supervisors, the home agents, under the guidance of Miss Foley, have helped in the planning and developing of well-balanced school lunches, using the products furnished through the surplus-foods program.

In Holyoke, where Miss Foley has been working with the school lunch supervisor for 3 or more years, an average of 1,400 undernourished and needy children were fed daily by the city during the past year. When the project began, the cost daily was 7 cents per child. By careful planning, the menus have been improved and the cost reduced to 3 cents a child. A raw vegetable or fruit is served every day, and dark bread is served every day but one. Lunches are served also on Saturday.

During the past winter, 40 different Middlesex County schools cooperated with the Surplus Marketing Administration and local welfare departments and made excellent use of the surplus commodities to further the luncheon project for school children, reports

Home Agent Eleanor B. Winters. The results were favorable in better health for the children, greater mental alertness, and better school grades. Mothers spoke of improved health and food habits.

In 5 of the Berkshire County schools, 739 children were fed daily at school last year. Every effort had been made to explain the availability of surplus commodities to the school committees and superintendents in smaller towns. Contacts were made in every town in the county. A representative of the Federal Surplus Commodities Corporation explained the use of the foods in the school lunch and helped to organize new lunch systems. Assistance was given in many towns to establish some type of hot lunch or dish to go with what the children bring from home. Home Agent Evelyn Streeter was furnished with some of the commodities for use at nutrition demonstration meetings. "The recipes seem to have appealed to the homemakers," says Miss Streeter, "for they are making better sandwiches for the lunch boxes, and are using dark flour, raisins, and prunes, according to the recipes given at the meetings."

■ North Carolina home demonstration clubwomen canned 7,621,702 containers of fruits, vegetables, meats, jams, and jellies last year.

New Film Strips

The following film strips have been completed by the Extension Service in cooperation with the Agricultural Adjustment Administration, Bureau of Agricultural Economics, and the Forest Service. The film strips may be purchased at the prices indicated, from Photo Lab, Inc., 3825 Georgia Avenue NW., Washington, D. C. At the same time order and remittance are sent to the above firm, a copy of the order should be sent to the Extension Service, United States Department of Agriculture, requesting authorization to make purchase. Blanks for this purpose will be supplied upon request to the Extension Service. Mimeographed lecture notes for use with each film strip will be supplied by the Extension Service.

Series 596. *Pruning Southern Pines*.—Shows that pruning side limbs of young pines to produce clear and valuable timber is a profitable practice under the right conditions, and tells what these conditions are and when and how to prune pine trees in forest stands. 65 frames, 55 cents.

Series 603. *Food Is Strength*.—Depicts the importance of proper food to the individual and the Nation. Shows that a well-nourished, healthy population is essential to America's defense and that America has the resources to provide abundant food for everyone. 50 frames, 50 cents.

The following four new defense and regional adjustment film strips prepared by the Bureau of Agricultural Economics and the Extension Service, deal with the impact of the defense program on agriculture. They take up briefly the most acute problems of each area and point out needed adjustments of land and people. These strips are available in single and double frames and can be purchased at the prices indicated.

Series 605. *Defense and the Farming South*. 39 frames, 50 cents. Double frame, \$1.

Series 606. *Defense and the Northern Dairy Region*. 38 frames, 50 cents. Double frame, \$1.

Series 607. *Defense and the Farming West*. 31 frames, 50 cents. Double frame, \$1.

Series 608. *Defense and the Corn Belt*. 35 frames, 50 cents. Double frame, \$1.

■ Two former Larimer County, Colo., 4-H Club members, Bob Anderson, of Fort Collins and Clarence Rothman, of Loveland, own dairy cows that have produced more than 500 pounds of butterfat during their latest lactation periods and are, therefore, members of the Colorado 500-Pound Cow Club. Both Anderson and Rothman have built up small herds of registered Guernseys as the result of their 4-H Club dairy activities, says D. L. McMillen, Larimer County agent, who helped them to establish their 4-H Club dairy enterprises.

Working in Abandoned Mining Communities

FANCHON WARFIELD, Home Demonstration Agent, Guernsey County, Ohio

■ It is strange how easy it is to go blithely along in extension, working with the cream of the rural people and giving little thought to the needs or problems of the others.

I had been working as home demonstration agent in Guernsey County almost 4 years before I realized how true this was.

Guernsey County has a number of abandoned mining communities, the inhabitants of which are almost entirely of foreign birth. I knew very little about their problems although I had carried 4-H Club work in two of these communities for 2 years.

While visiting one of the clubs at the close of the club season, I met the deaconess from the Methodist Church at the community house where she was working with a group of NYA girls. She expressed her appreciation of what I had done for the younger girls and asked if I ever worked with adults. I told her that through the winter I spent practically all my time with adult projects. Then she asked if I would have any time to meet with a group of women there. I asked her to come to my office the following day to discuss their needs and see what could be planned.

The Big Problem Was Nutrition

In discussing the problems of the community, she gave me a considerable amount of background information. We both came to the conclusion that the big problem of these people was one of nutrition. And, although my program of work had been planned since March, I realized that here was a real challenge. I decided to accept it and work it into my schedule as best I could.

As practically all the families were on relief, we had a financial problem to deal with, too. Never having worked with such groups before, I had no idea how they would react. I knew, however, that I should have to get them interested if it was going to mean anything to them. I also knew, from experience, that most women were interested in food demonstrations. That was my starting point, and it proved to be a good one.

First, I began with two demonstrations on food preparation in each of 2 communities. I tried to use and emphasize home-grown foods as much as possible, not only for health's sake but for economy's sake as well. These demonstrations were attended by 25 women in 1 community and 26 in the other. The attendance varied but little.

During one of these demonstrations, I said that I would be interested in knowing how many different nationalities were represented there that evening. So we went around the

group, and each told what country she was from. There were 6 different countries represented in the group of 25.

Miss Lakey, the deaconess, was present; and, while I was getting ready for the demonstration, she explained to them what we had planned and ended by asking if they would like to have Miss Warfield back. There was one little German woman in the group; and, with a twinkle in her eye, she answered, "I t'ink we wait and see how she do this time first." After the meeting was over she came up and, patting my arm, said, "I t'ink you can come back." They are most appreciative of what is done for them, and everyone present came up and thanked me for coming.

The demonstration of meals from home-grown foods was followed by garden-planning meetings in February; but by this time another such community had heard of the work, and the minister in this community came into the office to see what help I could give him. And so an extra community was scheduled for the garden planning. So far, the results of these meetings are: Plans have been made for three demonstration gardens to be carried in these three foreign communities; the 4-H Club boys will carry vegetable gardening for their project; and the older 4-H Club girls will carry a canning project.

Canning demonstrations will be given by the home demonstration agent. In early summer, the canning of early fruits and vegetables will be demonstrated and in late summer the canning of the late vegetables. In early fall, we shall have a meeting on the storing of vegetables.

Older Girls Ask For Help

"How far the little candle throws its beam!" Starting with a small handful of girls in 4-H Club work, extension work has reached and enveloped the entire family in these communities. The problem of the needs of the older youth is a serious one that the missionary workers in these communities have to face. There are a number of young people, both boys and girls, who are through high school but with no work. They need a good recreational program worked out for them.

Some of the girls attended one of the food demonstrations and, after the meeting was over, came up to me and asked if they were too old to be in 4-H Club work. I told them they were not too old but that I did not carry club work through the winter. They looked so disappointed and went on to say that there was nothing for them to do. I told them that if they would get a group of the young people together, I would meet with them on the fol-

lowing Monday night and we would see what we could plan.

Fifteen girls came to that first meeting. In talking over their interests, we decided to follow, as our guide, the 4-H Club outlines on Looking Your Best. We met every 2 weeks on Monday night and discussed such things as: Care of hair, care of skin and hands, care and repair of clothing. They were starved for such information and actually argued over who should get the books to read for the reports I assigned. The enrollment has grown to 20 girls.

Older Boys Become Interested

In February we started discussing personality development, and for our first meeting in March we invited boys to the discussion for the first time. Four of the more courageous ones came. They said they came to see what it was all about. At the close of the meeting, one of them came up to me and said: "Miss Warfield, if you would plan for some good games for the next meeting, I believe I could get the other boys in; and once they come then they will want to continue coming, for I think this is good."

This work with the older youth has been carried in just one community. The others have wanted it, but there are not enough days and nights to do everything, and these people need close supervision. However, I think this group is now ready to go on alone, with just an occasional visit to keep in touch with them. Then I shall have the time to develop another group in one of the other communities. They are a fine group to work with—interested, alert, and orderly, and anxious for any help that can be given them.

It is work, yes, but it pays great dividends. If I have helped them to make better use of what they have and at the same time to get a little more happiness out of life, then it has been worth every minute I have given them.

■ During February, one daily newspaper and five weeklies in Posey County, Ind., carried a full page of informational material on 4-H Club work. These newspapers reached a combined circulation of approximately 4,000 subscribers and an estimated 15,000 people. This 4-H page contained information on adult leaders, requirements to be a 4-H Club member, the club creed, the club pledge, descriptions of all the projects that are available to 4-H Club members, pictures of a 4-H Club meeting in session, a typical demonstration, an adult leader in action, and of approximately 200 4-H Club members attending a 4-H county-wide picnic. In all, there were 12 different articles, having a total of approximately 7,000 words.

Mattresses Promote Thought

**LOUISE C. FLEMING, Home Demonstration Agent,
Orangeburg County, S. C.**

■ When the mattress program was first explained to the Orangeburg County extension agents we "went up in the air." We did not realize at once the good that would result from such a program. We did know it meant additional worry, travel, and labor, and also neglect of other home demonstration activities already under way. But as loyal servants of our people, we began helping local cotton mattress chairmen find work centers and get volunteer supervisors.

As the work progressed, we caught a vision; and this is what we saw: Poor beds with straw ticks in 50 percent of the farm homes; low incomes causing lack of everyday necessities and comforts; lack of comfortable beds impairing the health and causing laborers to be inefficient; suffering with backache, and nervousness from loss of sleep causing cross words and unhappy family relations.

Requires an All-Out Program

Every problem has a solution. This one required the cooperation of both county and State extension workers, landowners, school boards, home demonstration club members, AAA, and the Surplus Commodities Corporation.

The vision of the possibilities this cotton mattress program offered was quickly caught by low-income farm families, also the 1,000 farm families whose incomes are better but not adequate for every need. In these homes also, the people needed to renovate old mattresses and to learn to make new ones. They needed a plan for increasing their income. They worked to produce farm products that they could sell. So, here was an opportunity to teach the production of a home meat supply, poultry raising, and the growing of vegetables and fruits, so that they could produce enough to feed the family and sell the surplus through cooperative marketing associations. At least new ticking could be bought with the extra money, and cotton could be grown at home. The waste cotton usually left in the field after picking was done, often was enough to make one mattress. After the art of making a mattress was learned, this waste cotton was saved and used to furnish greater comfort in the farm home.

As a result of the program, 34 cotton mattress work centers were organized in our county; 3,487 mattresses were made in the work centers; demonstrations were given in the care of beds, destroying household pests, making mattress covers, buying bedding, and making sheets and pillow cases. Twenty-four home demonstration club members acted as su-

pervisors; 6 Negro women supervised 5 centers organized; 1,100 women made new or renovated old mattresses; 300 landowners became aware of conditions among tenants and planned to help improve living conditions in their tenant homes.

Owners of sawmills sometimes gave lumber for making tables on which to make mattresses. Butchering tables from farm homes were sometimes used, and interested men had tables made where necessary. Schoolhouses, dwellings, vacant stores, and warehouses were used as work centers—in fact, any building that was offered that had a good cover, light, and ventilation.

We have no record of how many feel this way, but often we are told: "I wouldn't take a hundred dollars for my mattress. My health is so much better now, and I think resting better at night has helped."

Many women expressed a desire to join a home demonstration club but could not because of lack of transportation or some home problem.

The members of the home demonstration clubs were each asked to adopt a family of this kind. Reports show that the influence of extension work has spread. Many women who had not realized before what a privilege it was to get helpful information each month just by attending home demonstration club meetings came to a realization and became better members. In hunting for help for their adopted families they found help for their own home use. In reality, this mattress program to turn surplus cotton into better living has turned a farm surplus into a national blessing.

From Graduates to Illiterates

Extension work is carried on in this county by a white county agricultural agent and his assistant, a white county home demonstration agent and her assistant, a Negro county agricultural agent and his assistant, and a Negro county home demonstration agent.

These seven agents work with farm families from high incomes to very low incomes, from college graduates to illiterates. We find that the educated class knows the advantages gained by working with the agents and calls on us for assistance on many problems.

The medium well-educated often think that they know more than the other fellow, however, much of our work is among this class. The less educated do not know that there is any way for them to improve their living

conditions and often are without hope and feel so helpless. They cannot understand that the Government is trying to help them to help themselves. They mostly want the present necessities of life without thought for the future and they know little about the value of planning ahead and how to plan. If the many Government agencies are giving away anything visible, people come to the centers in great numbers with outstretched hands; but when it comes to working for the benefits, well, that is another story. To reach and help this class has been a big problem with county extension agents. And, this is where the cotton mattress program has helped. The Surplus Commodity Corporation and the AAA worked out the giving of 50 pounds of cotton and 10 yards of ticking for a cotton mattress to any family whose income in 1939 was \$400 or less, provided that half of the income came from the farm.

4,500 Apply for Mattresses

Often we find among this low-income group many of the less educated whites and Negroes. Some are those who were caught in the depression by circumstances over which they had no control. The majority of them are tenants, wage hands, and croppers. A few landowners are in the group. Four thousand five hundred families of this low-income rural group applied for a mattress in 1940.

Every month the home demonstration agent tries to get a letter to members of the low-income group whose names are on the mattress roll, giving some timely information. Several of these families have said how much this information is appreciated and how helpful these letters are.

Finally, the mattress program has helped to establish greater confidence in the county home demonstration agents and in the Extension Service. It has brought the county home demonstration agents into contact with many individuals that they would not otherwise have known.

Whew! but it was a hard job.

4-H Club Membership Hits New Peak

Enrollment figures for 1940 show a further increase with 1,420,297 boys and girls listed as members of 79,721 4-H Clubs in the 48 States, Alaska, Hawaii, and Puerto Rico. This record membership represents an increase of nearly 39,000 members over 1939. There was a higher percentage of completions in 1940, with more than three-fourths of the boys and girls finishing their projects.

The greatest membership gains are reported in the Southern States, with Alabama again leading the way, having a membership of 115,193 boys and girls. Texas is second, with 88,091 members; and Georgia runs third, reporting 82,962 members.

Shifting Tides of Humanity

D. P. TRENT, Principal Agricultural Economist, Division of State and Local Planning, Bureau of Agricultural Economics

■ When the 1935 census was taken, a million tenant and sharecropper families, or 5 million people, had moved within 1 year. This means that approximately a million tenant and sharecropper families move each year. The "erosive" and destructive effects of this wholesale shifting of farm people from farm to farm and from community to community is too obvious to need detailed discussion here.

Not all of this moving is detrimental or undesirable. Some tenants buy farms and become home owners. Some move to better communities. Some move for better markets, better roads, better schools, more healthful locations, and for other good reasons. Neither landlords nor tenants are, as a group, particularly to blame for all this moving. A Negro student at Tuskegee Institute said, "A lot of them move because the landlord didn't treat them right, and a lot of them move because they didn't treat the landlord right."

Just "Trouble Swappin'"

There are many causes of all this moving, but most of it is done for no good reason and with no benefit to anyone. Director Davis of the Alabama Extension Service has said that in most of this moving landlords and tenants are just "trouble swappin'," and we might add that in most of this "trouble swappin'" both parties "pay boot," because moving is a costly business to both tenants and landlords.

Tenancy and the wholesale moving of tenants and sharecroppers do not constitute the whole problem. In general, this insecurity and instability on the land has certain accompaniments, and all of these combine to make up a "disadvantaged" pattern of rural life. Some of these accompaniments are: Low income, poor land, deficient diet, poor health, poor housing, low standards of education, inefficient farming methods, and soil erosion. Which of these are cause and which are effect is not possible to determine. Each factor is at the same time both cause and effect, and all are interrelated as parts of the pattern.

Obviously, it is difficult for any agency to establish effective contact with these shifting families or for these families to become a part of things in the communities where they live for short periods and under uncertain circumstances. To render service and assistance to them is like shooting at a disappearing or moving target, or like catching birds by sprinkling salt on their tails. Agencies do help a lot of them, and many of these families

do participate in available services and activities; but, in general, the benefits are limited and are obtained under handicaps and difficulties.

In the main, these "disadvantaged" farm families are difficult to reach and are the least responsive, until we have gained their confidence by reducing our methods and our techniques to the realities of their needs and have adjusted our thinking to their level of understanding and their ability to apply. They require a high degree of direct and individual attention, and their problems require a high degree of common sense and human understanding. But probably more than all other classes of farm people these are most appreciative to patient and sympathetic guidance; and, when they have once been convinced of the sincerity and value of the assistance offered, they show a degree of confidence and trust which opens the way for almost unlimited constructive service.

The mere state of mind of expecting to move at the end of the year contributes to a disinclination of tenant and sharecropper families to acquire things which are difficult to move. A milk cow does not lead well either behind a wagon or a "jalopy." Canned fruit and vegetables, jellies, jams, preserves, pickles, relishes, and kraut are difficult to move because the cans are apt to get broken. Home-cured ham and bacon are not nice to move, and home-grown feed is a nuisance at moving time. The natural tendency is not to accumulate these things but to be prepared to move to another place on short notice. And it is only natural that such tenants are usually not interested in making improvements to the land when they know that they may not remain to share the benefits. The result of this situation is that both tenants and landlords are inclined to get what they can out of the land within the present year and to give little thought to the future productivity and value of the farm. And so, the circle goes round and round, year after year, as it has done for several generations. Each year a wholesale reshuffling of a million tenant families and a million farms takes place. Landlords and tenants just keep on "trouble swappin'," and everyone shares in the economic and social losses which are involved in this constant erosion of physical and human resources.

The first and most essential step in any systematic effort to do something about this situation is to get these families anchored on the land with a reasonable chance to settle down and stay put and to work out their own salvation with the help of such aids and such guidance as are available to them. Not only

is this best for the tenant families but it is also best for the owners of the farms which they occupy. Having attained this anchorage on the land, most of these tenants and sharecroppers will be inclined to acquire livestock, to produce food and feed supplies, to find a place for themselves in community activities, and to do other things which will contribute to their comfort and happiness and to the profit and satisfaction of both themselves and their landlords.

Needless to say, these things cannot be accomplished in a wholesale fashion or in a short period of time. The problem is so acute and the need is so vital to the welfare of millions of people and to the well-being of the Nation, and of democracy in the world, that definite efforts must be made to deal with these difficult and complicated problems in an effective way.

There is definite evidence that a solution to these problems can be applied effectively. There is evidence that landlords and tenants welcome and are seeking aid in improvement of their tenure arrangements and in solution of their common problems. There are, in the successful experience of tenants and sharecroppers and in the joint experience of landlords and tenants over a long period of years, abundant demonstrations of the value of practicable measures which may well be a part of the solution to these problems. The Extension Service, the Farm Security Administration, the Farm Credit Administration, and various other agencies which deal with the problems of agriculture have in numerous instances and over a long period of years demonstrated their ability to aid disadvantaged farm people in working out the solution to their own problems. By pooling their experiences and resources and by coordinating their efforts in a unified and concerted approach to the whole problem, these and other agencies and groups in all parts of the country have the knowledge, the experience, and the facilities with which to aid farm people in erasing the "bad spots" in the disadvantaged pattern of rural life.

Land Use Planning Pools Resources

In many States and counties, this joining of hands in a careful analysis of the problem and in working out and initiating a unified plan of action is being accomplished under the auspices of State and county land use planning committees. Such committees are composed of local representatives of the various agencies concerned with agriculture and rural life and of representative farmers and farm women. In this manner the combined experience and judgment of technicians and of farm people are brought to bear upon the whole problem of disadvantaged farm people, as a part of the general process of land use planning.

To provide working tools with which all agencies may make a definite and unified approach, the Department of Agriculture has

issued simplified and broadly flexible lease forms and related materials. These are available in States and counties where desired, primarily through the channels of the Extension Service. Obviously, these forms are not, within themselves, the solution to the whole problem; but they do provide a basis for conference and public discussion, and they do provide a means of getting individual landlords and tenants down to brass tacks and clear understandings in their leasing arrangements.

Many States have been working upon the problem of farm tenancy and of low-income farm people in a systematic way and with good results for many years. More recently, the agencies in a number of States have undertaken more definite and more direct efforts to deal with the problems of land tenure, leasing procedure, and landlord-tenant relationships. In Iowa, Illinois, Oklahoma, South Dakota, South Carolina, Arkansas, North Carolina, Tennessee, Georgia, New York, Louisiana, Mississippi, Alabama, and in other States, definite steps have been taken through research and through extension which are designed to aid landlords and tenants in improvement of the tenure system. In South Carolina, North Carolina, and Oklahoma, and possibly in other States, tenure improvement work has been given an increased impetus through the employment of extension specialists in farm leasing or landlord-tenant relations. The programs in tenure improvement or landlord-tenant relations include such activities as: Organization of county tenure improvement committees or subcommittees; county and community landlord-tenant conferences; direct assistance to landlords and tenants in filling out leases; establishment of plantation improvement

demonstration and of individual or community tenure improvement demonstrations; public awards or recognitions for improved tenure systems or landlord-tenant relations; general distribution of improved lease forms and related materials; public discussion of tenure problems and leasing arrangements in meetings of farm women and 4-H Club members and of other groups. In certain States, emphasis is placed upon studies of existing outstanding instances of good landlord-tenant relations, and these are brought to the attention of the general public as examples. In some States a second step is taken of cooperating with representative landlords and tenants in the planning of systematic improvements in their arrangements and relationships and of thus creating good examples or demonstrations of improved tenure arrangements.

The difficulties involved in these undertakings are, at the same time, the measure of the opportunities and the challenge for service. If we can help these disadvantaged farm people to work out the solution to their problems, we shall have largely helped to find the solution to all the problems of agriculture and rural life; and, by so doing, we shall have contributed immeasurably to the greater security and strength of the Nation and of the American way of life. If we cannot help these people to find the solution to their problems, then we must admit a defeat which challenges the American way of life and the efficacy of democracy itself. In this situation lies the greatest challenge to our efforts and our abilities to aid agriculture and rural life; and, by the same token, in this challenge lies our greatest opportunity for service.

were given in the making of bread, cheese, rugs, fireless cookers; and lessons were given in table setting, gardening, judging a dairy cow, bathing the baby, and what to have ready when the doctor comes. Two motion pictures were shown entitled "Let My People Live" and "The Negro Farmer"—the first motion pictures ever seen by many of the Negro farm people attending. Visits to these communities a few weeks after the school revealed that the women were applying the information received. Nine women had started rugs, and two had completed rugs; five women had made a week's supply of cheese, and four families had built fireless cookers.

The movable school force made a radio transcription entitled "The Movable School Goes to the Negro Farmer," which has been broadcast over three Alabama radio stations.

"We know that 'like land, like people,'" stated R. R. Bell, movable school farm agent. "Where we have poor land we have poor people. We have been ever mindful that in teaching to build up the soil and to raise more and better crops and livestock, our ultimate goal is to build up the lives of the farm people. Often after a day's work the movable school force has gone to the homes of farm families and spent hours in assisting them to work out possible solutions for some of their problems. We have encouraged farm families to grow vegetables in their gardens for a balanced menu and have taught them how to serve meals. As farming is both a business and a mode of life, when the security of the farming business is threatened, the security of the farm home is also in danger. Because of that fact, farm homemakers are just as deeply interested as their husbands in striving to make possible greater security in farming, the kind of security that will safeguard their homes and enrich their lives."

Movable School Makes the Rounds of Negro Farms in Alabama

■ Alabama's movable school truck, familiarly known as the Booker T. Washington School on Wheels, continues to make the rounds, demonstrating better farming and homemaking methods to Negro farm families.

Last year the truck traveled 3,115 miles, and 59 schools were conducted in 15 Alabama counties. More than 4,000 Negro farm men, women, and children attended the demonstrations conducted by the movable school staff, together with the county agents.

The movable school preaches health and sanitation wherever it goes. In Tallapoosa County, women and girls were given some helpful demonstrations by Nurse Dent in health on first aid, care of rubber goods, bathing and dressing the baby, methods of making bed patients comfortable, and what to have ready when the doctor comes. A

baby clinic was held with the county health officer in charge, and 25 babies and pre-school-age children were examined.

In Crenshaw County, lecture demonstrations were given on first aid, infant care, prenatal hygiene, the importance of birth registration, and personal hygiene. Other demonstrations given were: Field selection of seed corn, mixing and applying stain for farm buildings, storing sweetpotatoes, cutting and building steps, making spray material for insects, planting winter legumes, screening windows and doors, planting the fall garden, low-cost brooder construction, home improvement, food preservation, rug-making, canning, using the fireless cooker, and food preparation.

The movable school visited 5 communities in Hale County where 19 demonstrations

■ The Early Birds, a 4-H Club in San Bernardino County, Calif., has had for its community project the Monte Vista Home, the county home for old women. The club has put on an occasional musical program and has helped the inmates to celebrate holidays. They have made favors for the table and trays, sent cards, and valentines and surprise packages of simple cookies and candies. They try to think of the little homey things which most of those elderly folks would miss so sorely.

From Mattresses

Arkansas agents estimated that 8,895 new low-income home demonstration club members and 3,944 new 4-H Club members would result from the mattress program. A study revealed that of 153,571 families with an average income of \$206.70 about 43 percent were represented in Arkansas home demonstration club enrollment, white and Negro.

Helping the Low-Income Farmer

They Like Motion Pictures

■ One of the most successful plans that I have used in Marion County for reaching the low-income group has been visual-educational material. I have a motion-picture projector, and I show as many educational films as possible during the year, combined with a short comedy and followed by a discussion of problems and work under way in the county. We have no trouble in getting the producers out to the meetings, and usually the entire family attends the show.

The mattress program has been another way in which we have been able to reach the low-income group by passing out educational material at the mattress center.



We have also been able to reach a large number of low-income families by contacting them personally and delivering educational material to them at the time they are in the county office signing applications and receiving checks.—Lloyd McGhee, county agent, Marion County.

Begin With the Youth

In Attala County we are trying to work with all farmers in the same manner, regardless of the amount of their income. In order to raise the amount of income of farm families, we have just finished delivering 102,000 pine seedlings to 4-H Club members for setting out this year. I went to Coffeeville and brought the seedlings home in the back of my car, and the club boys called for them at the office. I feel safe in saying that more than 50 percent of the boys receiving seedlings could certainly come in the low-income family group.

Feeling that low-income families will be better able to increase their income by breeding and caring for better livestock, we have obtained 24 registered Jersey bulls from some of the best herds in the South and placed them at strategic points in the county so that they will be accessible to farmers. In several cases, these bulls have actually been placed with farmers in the low-income bracket, and every encouragement has been given them to care for the bull and his daughters properly.

4-H Club work is being done with children from low-income families in dairy-calf club work and pig club work, along with the various other enterprises.

Through the AAA program, such families are directly benefited by receiving conservation material and other services offered by the AAA.

We recently obtained the motion picture, Poultry a Billion-Dollar Industry, and showed it to the Negroes in the county. In one rural school where there is current, we darkened the windows and showed it along with a comedy to the school children one afternoon.—Arlis Anderson, county agent, Attala County.

Helps Farmers Get Credit

The low-income farm families of Rankin County are reached through personal contact when they call at the county agent's office. They receive the same consideration, and are given the same time and service as farmers of higher income.

The low-income farm families are urged to attend all community and county-wide educational meetings. They receive the same literature, circular letters, and bulletins as other farmers. They are reached through the Negro county and home demonstration agents. The boys and girls from low-income farm families belong to 4-H Clubs. They attend 4-H meetings, rallies, club shows, and camps. They are assisted, as individuals, in selecting the project most suited to them and given individual supervision and training.

The mattress program is a program designed especially for the low-income group. These families have been assisted in educational demonstrations and better home living. Last year 2,811 families were given this particular training of how to "make a mattress."

The AAA program is another phase of extension work that reaches the low-income farmer. Each farmer is given individual advice, educational material, and taught the importance of soil-building, crop rotation, protection of the forest, seeding of summer and winter legumes, marketing, erosion control.

In the early spring of each year every community in the county is visited for the purpose of treating work stock. The low-income farm families are given this free service and at the same time taught the proper care and treatment of work animals.

They are all assisted in getting credit from cooperatives, Farm Security, Jackson Production Credit, Emergency Seed and Feed Loan, and others to best carry on farming operations, through use of grant of aid, assignments to

secure advancements of fertilizers, seeds, feed, and supplies.

Visual education is also another feature used in this county. A large number of the communities over the county have the use of rural electrification. The agent has a sound picture machine and has shown a number of educational and timely pictures, which were given for the benefit of farmers of the low-income group.

As county agent of Rankin County, Miss., I am personally glad to state that no partiality is shown between farmers of low and high income.—R. G. Prescott, county agent, Rankin County.

They Clamor for Advice

In my regular extension program, I find that I reach, by far, more of the lower income class than I do those whose income is more and who have a higher standard of living. The lower income group is clamoring for advice, suggestions, and information that might help in increasing the income and raising the standard of living. Farmers, by large numbers, come to the county agent's office for information each day with reference to their farm problems, and 95 percent of these farmers are of the low-income group. We are at present holding a series of community meetings for the purpose of discussing a number of agricultural items with farmers. At these meetings we are discussing the county planning and policy committee's recommendations on cash enterprises for 1941 and future years. These enterprises consist of dairying, farm cattle, sweetpotatoes, Irish potatoes, soybeans, and peas.

We are also discussing and emphasizing the production of more food and feed crops for 1941. Consideration has been given to the Clarion Ledger's "Acres of Independence" competition and how it fits into the live-at-home and more-wholesome-food program for 1941. We are also discussing the cotton stamp program under the AAA program and how it can be used to the best advantage by farmers. In a total of 6 of these community meetings in Covington County, we have had approximately 300 farmers in attendance, and at least 80 percent of them are of the lower income group in the communities repre-



sented.—*C. I. Smith, county agent, Covington County.*

We Understand Each Other

Bolivar County is said to have more Negro landowners than any other county in the United States. Most of them are in the lower income group but not all. Perhaps tenants generally would be classed in the lower income group.

We use local newspapers, circular letters, and meetings at country churches or at schoolhouses to reach many small farmers and tenants. Many of these people come to the office to ask questions about gardens, food, feed crops, pastures, legumes, soil building, the cotton program, and supplemental programs.

I dare say that 60 to 70 percent of our time is spent working with the group some people choose to call the "low-income families." We get along well together; they understand us, and we understand them fairly well.

I believe Christ said something about "The poor we have with us always." There are some families like that in Bolivar. Many of these families farm the farmer and not the land, getting "furnish" as far as they can, then leaving crop, farm, and all. Others will stay until they get the parity check and then walk off.

Bolivar County has a large Negro population and some communities that are exclusively Negro. We have one AAA committee, all Negro, which has functioned since the program started in 1933. We meet with them and discuss problems common to them and to all cotton growers. They cooperate in the work. We have to settle squabbles between Negro operators and Negro tenants just as we do between white operators and tenants of both races.

Bulletins taken from the office are carried out largely by tenants, small farmers, and the low-income farmer. They take thousands each year, mainly on gardens, milk and eggs, truck crops, and pork production.

Tenants know and understand the program in Bolivar County. They have received about 5,000 mattresses and will get, maybe, that many more. This gives contacts to promote gardens and food program and makes for better living.

Rivers do not rise higher than their source. Some people are like that. Silk purses from sows' ears are not so common. Although we try to help the lower income group, we believe it a gross error to try to pull down those who have, by hard work, achieved a better financial status.—*T. Y. Williford, county agent, Bolivar County.*

How do you reach the low-income farm families in your county? This was the question asked all county agents in Mississippi, a State which is mainly agricultural, has a large Negro population, and many families that are classed in the low-income brackets. The agents all had something to say about it, and these letters typify methods used generally.

Meetings Bring Them Out

It is an established fact that farmers of the low-income group in Kemper County attend meetings called by the extension agent more readily than those of the higher income group. With this fact in mind, meetings are scheduled in the remote places of the county so that every producer can attend, even though he does not enjoy the luxury of an automobile.

At these meetings, a general talk is made on some phase of the county farm program, after which individual problems are considered by the entire group in an effort to illustrate the questions which have arisen. These meetings are necessary only for the farmers of the lower income group, as those of the higher income group come to the office or to county-wide meetings for their information.

Farmers of the low-income group who never have planted winter cover crops or used phosphate on winter cover crops have been reached through the grant-of-aid feature of the AAA program. It was with this group that the majority of time was spent on educational work in connection with the grant-of-aid program.

Aside from group meetings, it is always necessary to work individually with members of this group.—*B. H. Dixon, county agent, Kemper County.*

Spell Out the Essentials

We have some seven to eight thousand tenant families in Coahoma County, and of course it is impossible to do individual work with this many families. During the past few years, we have held meetings of an educational nature at the Negro schools and churches and other places in the various communities of the county. To supplement this educational program, we now have a 16-millimeter projector, and pictures are being shown in the various communities. We find that the pictures, plus our talks on the AAA, winter cover crops, live-at-home programs, health, and other subjects discussed at these meetings, are getting good results.

In this program we have the hearty cooperation of the county superintendent of education and his Negro teachers, as well as other agencies in the county.

We have for several years appreciated the importance of reaching the masses and are convinced that the only way we can accomplish results is to meet them in groups in the various communities over the county. The whole extension department, including both white and Negro home demonstration agents and county agents, the assistant county agent, and the county administrative assistant, are working on this program.

Only recently a group of our leading planters met together and decided to spell out a very simple farm program for tenants



in this Delta county. This program in a broad sense, after being spelled out, is cows, hogs, chickens, gardens, and other feed and food crops. This committee decided that the best thing to do was to spell out the essential things entering into a live-at-home program, otherwise too much emphasis would be placed on gardens alone, and gardens are only a small part of the real live-at-home program.—*Harris Barnes, county agent, Coahoma County.*

Mental Hygiene

Maine women in more than 100 rural communities will study phases of mental hygiene at group meetings this spring and summer. The meetings are sponsored by local groups of farm bureau women in cooperation with the Maine Extension Service and Public Health Association. A public health nurse will be the instructor for the groups and will present: Good mental health for the whole family, the differences in the mental processes of persons of different ages, the importance of habit, problem children, and how parents can best guide adolescents.

■ More than 13,000 Georgia farm families were enrolled in handicraft work in 1940, the Agricultural Extension Service reports.

Meeting the Challenge of Low Income

F. A. RAYMALEY, Agricultural Agent, Cumberland County, N. J.

■ The grief and kindred troubles which accompany low income in our farm homes have rightfully classed this evil as America's No. 1 farm problem. While some of the difficulties it presents in southern New Jersey are not of the pattern familiar to other areas, their influence on the lives of the farm people and the extension worker is identical. Certainly in our Cumberland County farm picture the good farmer on good land has felt the pinch of this reduced income. The good farmer on poorer land has felt it more, while the questionable farmer on submarginal land has presented a real challenge.

On about 2,800 commercial farms in Cumberland County intensive farming is practiced. The pinch of insufficient income is felt on about three-fourths of the truck farms, on at least one-half the poultry farms, in practically all fruit operations, and on combinations of these enterprises with dairying. From a personal or enterprise standpoint, therefore, the issue of low income is not one affecting any one isolated group but rather a whole host of well-meaning, hard-working, average, local farm people.

Thus through working with these farm people in everyday extension activities over the past decade, we have actually designed our extension program to cope in all lines with realities faced by low-income farm people. And the farm people are not unmindful of our program. Not only have they helped formulate it, but they have constantly looked to us for whatever help could be offered them in working out of the maze and vicissitudes of their low-income plight. Our program has not broken faith with these people. Statistics filed in our office on personal records as well as on townships or farming types peculiar to a district show that low-income people make the most use of the Extension Service and of our time. This also follows through with seasonal changes in their farm enterprises. We have from 800 to 1,200 office visitors each month, almost twice as many telephone from one place or another, and, in addition, we visit more than 100 farms each month. With the demand for time centering on these particular farmers and their problems, it is obvious that our low-income people are getting the greatest proportion of our time.

Here again we have learned, as recent efforts of the Farm Security Administration in the same county have confirmed, that there are always some farm people who cannot be assisted by any program in which they themselves must play an important part. Because of their temperament or their own coming back to live on the land as misfits in local industries, this group is a special problem study in itself. But even so, some of these people

have found our combined program with the Farm Security sympathetic to the troubles that confront them.

One of the strong points of Extension Service work in Cumberland County is that during the past decade our leadership efforts have been strengthened among the more successful farm people. Those who have not felt the pinch of low income have in most cases, assumed positions of real leadership assistance in our extension program, to the extent that without this help it would have been physically impossible for the county agent to have covered all the work that has been done.

Any extension program that is properly designed must face the problems of the farm people in the area. This is certainly true of our local program, for we strive at all times to look at the problems of our people and to meet their cases with what our research, experimental, and other agricultural institutions have to offer.

Keeping the Earned Dollars

One of our important pieces of work has been to keep the earned dollars on the farm. This has been achieved on our vegetable farms, for example, by doing more work on the farm, such as growing plants, and by lengthening the market seasons with winter-stored vegetables. On our dairy farms, the production of more feed units on the home farm, the improvement of pastures, and similar methods are equally useful in conserving hard-earned milk dollars. Barn and home meetings on the subject, circular letters, and other means are used extensively to teach this point.

Take, for instance, a typical case we encountered in 1938. The farmer has a good dairy herd on a soil equally adapted to some of the earlier truck crops. About one-third to one-half of the farm was devoted to beets, white potatoes, peppers, sweet corn, and some asparagus. The business, the buildings, and the home seemed to be heading downhill entirely too fast for decreased income. By some farm accounting data on his own farm and by some later dairy-herd improvement association records we confirmed our observations that here was a good set-up to improve. Further analysis of the records showed that his feed bill at the nearby mill used about 50 cents on each dollar taken in from milk. The truck crops produced showed a close return margin over costs. With some figures and extension teaching procedure, the farmer was shown that his own farm should grow more feed, that his dollar taken in for milk could be conserved in this way; and in turn,

land growing truck crops at a close margin could return a better income on dairy feed. The year 1940 proved one of the best in a decade on the farm. In 1941 the same plan will be followed. The pastures will be fertilized, better grains and hay will be produced; and as in 1939 and 1940, the truck crops will be limited to the sweet corn, which feeds the dairy by residues, and to asparagus, which has been increased in acreage slightly for peculiar local market advantages.

Then there is the question of better subsistence. Too often our farm people after struggling to get hold of a dollar promptly spend it in town for many things that the farm itself might furnish. Our program has not advocated going back to the so-called "good old days," but it has presented suggestions that farmers can and do follow to get a better living on and from the land. This work, while still unpopular with some farm leaders and a few farm people, is gaining ground and has gained considerable thanks wherever it has been properly tried. Records show the value of a good garden. A cow or pigs on many vegetable or poultry farms, and other types of subsistence are very applicable to this area.

Another manner in which the program has been effective in reaching low-income farm people has been our own efforts to get out among these people in the county, such as by appointment dates at auction market offices and similar locations. The pressure of heavy calls on our office began when incomes were lowest, and contacts made at that time have never been lost. Low-income people in these appointment neighborhoods still look to the agent for assistance in all their troubles.

One of the most significant methods we have used to assist low-income people is the auction market. An Extension Service project in the first place, these markets are now vast assembly places where all farmers bring their produce for sale. Here, regardless of financial standing or personal obligations, the farmer may sell his produce—one package or a thousand—to the highest bidder, and get cash for it. His cost of marketing is reduced, the risk of selling is eliminated, and his efforts for better packaging and quality are rewarded. This marketing service is in itself a big factor in helping income. Figures in our office comparing prices at the auction with those obtained under the old method of shipment show thousands of dollars gained in increased income and reduced selling costs.

In addition, our program urges those selling through auctions to pool orders for supplies, such as hampers, baskets, seed, and fertilizer; in this way they get savings on initial costs,

thus reducing costs on the farm itself and in turn helping farmer income. At their annual meetings, some of these markets show returns of several hundred dollars average to members who take part in this type of buying. So farmers, through these markets, have been shown how to help themselves.

In farm accounting, in soil test meetings for lime and soil improvement, in strawberry culture meetings, and in countless other instances we work directly with the people who are most in need of this type of aid, assisted by the market master. Once this

set-up is established, it becomes an important link in all work with these low-income people.

Summing all this up—and admittedly little detail has been offered—we might say that our outstanding farm leaders and local people feel there is as much being done for the low-income people as is possible under our present economic relationships. When farm income from a national viewpoint bears a better relation to other income and responds to national programs designed to aid in achieving this end, our procedure will be flexible enough to continue the present work.

Agents Work With Small Farmers

C. E. BREHM, Director of Extension, Tennessee

■ Tennessee is a State of very small farms with correspondingly small incomes. It is with the people on these farms that we in the Extension Service are concerned. According to the 1930 census, which classified farms according to their size, there were 245,657 farms in the State. Of this number, 6,344 ranged from 200 to 400 acres in size; 1,312 farms from 500 to 900 acres; 238 farms from 1,000 to 4,000 acres, and 8 farms more than 5,000 acres. There are only 7,902 farms above 200 acres in size. There were 187,632 farms ranging below 200 acres in size, with by far the greater number ranging from 20 to 90 acres. Furthermore, of the total 18,003,241 acres in farms, 12,164,590 acres were in the hands of operators with less than 200 acres, with by far the biggest percentage of that with operators whose farms were less than 90 acres. The average size of the farm in Tennessee was 69.5 acres, which means that there was an average of less than 40 acres of cropland. All these farms had relatively low incomes corresponding with the size of the farm.

According to the 1935 census, there were 273,783 farms in Tennessee, which means that the size of the farms is getting smaller from decade to decade. Furthermore, the TVA with its program of reservoir construction will take out of cultivation between 500,000 and 600,000 acres of the best farm land in the State—the river and creek bottoms—which is further contributing to diminishing the size of the farms and the income of farmers, inasmuch as the farmers in the reservoir areas must be relocated on uplands of lesser productive capacity. There is considerable discussion about “family-size farms” of about 125 acres at the present time. There are approximately 38,138 farms of this size in the State. Assuming that the larger farms were split up to increase the size of the smaller units, there is not enough

farm land in the State to provide a so-called “family-size” farm for every farm operator. Thus, the farms will continue small and, as time passes and population increases, probably will get smaller in size.

Of the 273,783 farm operators enumerated in the 1935 census, 125,040 are described as owners; 21,656 part owners; 480 managers; 51,477 croppers, and 75,130 tenants. In the very nature of things the Agricultural Extension Service is working with small farmers, large farmers, owners, tenants, and sharecroppers alike. The fact of the matter is that a far greater amount of work is being done with the small farmers, tenants, and sharecroppers because there are so many more of them.

The cooperative program with the Agricultural Adjustment Administration, is further evidence of the educational work done with small farmers, tenants, and sharecroppers. The county agricultural agents do the educational work with all farmers in the county for the AAA committeemen and recommend the soil-building practices that are most effective in their respective counties, for which payments are made. The farmer usually consults the county agent before filling out his work plan. After all, the Triple-A soil conservation program is closely related to the Extension soil conservation program. The only difference is that the Triple-A now makes cash payments to farmers to encourage them to adopt better farm practices, the use of lime, phosphate, and cover crops, that the Agricultural Extension Service has been encouraging all farmers throughout the State to adopt through demonstration methods, voluntarily and without additional financial reward, other than increasing their income by their own efforts. Last year approximately 173,000 farmers, representing almost 90 percent of the cropland in the State, participated in the

Triple-A program. And these were not the large farmers. For example, in one county where participation was almost exclusively in the soil-conservation phases of the program the average payment of 3,000 farmers participating was approximately \$27. Only 4 farmers out of this number received payments in excess of \$200 each. In many counties throughout the State the average payment to farmers from the AAA program is less than \$20.

Another program that has been exceedingly helpful and reflects the work being done with low-income families has been the mattress-demonstration program carried on by the county home demonstration agents. This program was limited to families, white and Negro, with incomes of \$400 or less. Most of these families had considerably less than \$400. In 65 counties in which this program was carried, each of 71,061 families, white and Negro, received a mattress. In Tipton County, more than 3,000 families received a mattress; in Giles County, 2,918 families each received a mattress; and in Lawrence County, 2,680 families. These mattresses were made exclusively under the supervision of the home demonstration agents. But this was not the only help given these families. During these demonstrations, instruction and demonstrations on other household matters are given that have proved helpful to them. There is not another agricultural agency functioning in the State that has contacted and been so helpful to low-income families as the white home demonstration agents and the 10 Negro home demonstration agents.

But the foregoing illustrations of educational work with small farmers, tenants, and sharecroppers are not all. The home food supply program is another illustration. This program was carried on to encourage farm families, white and Negro, to grow at least 75 percent of the food they consumed, including a variety of the necessary amounts of food for good healthful living. More than 100,000 farm families were contacted and given instructions on the proper foods and how to produce them. They all made varying degrees of effort to produce more food of the right kind. More than 60,000 persons definitely enrolled in the program, signing an enrollment card and making the effort to produce and store 75 percent of the food they consumed. More than 20,000 families reached the goal in producing 75 percent of the food they consumed and are being given certificates of merit signed by the Governor. Most of the families were small farmers, tenants, and sharecroppers. These are only a few of the illustrations of educational work done with small farmers, tenants, and sharecroppers, white and Negro. Similar work has been done with them in every phase of extension activity. It may be emphasized again that the great majority of farms in Tennessee are of small acreage and that the income on them is correspondingly low.

The Cotton Mattress and the Community

LEONARD HEGNAUER, Extension Agronomist, State College of Washington

■ Recently I visited two community centers where mattress making was in progress. The work had but recently begun, and the workers had not yet had time to appraise fully the results of their efforts. They were aware, however, that here was a work project that had possibilities not only for themselves but also for the betterment of the community.

Upon entering the large workroom, one saw an open bale of cotton standing in the corner. Part of the bale had already been used in filling mattresses under construction. The cotton was soft, clean, and beautifully white. The fleecy mass indicated superb quality. It was just what was needed for making high-grade mattresses if proper skill and care could be employed.

As I looked upon the open bale, I got a glimpse of what was back of the bale leading in the direction of the field. My thoughts at once took me back to the Southland whence this useful product came. It seemed to me that I could once more see the cottonfields as I had known them in years gone by. It seemed that I could almost see the very field which supplied this particular bale. At least I could see long rows of sturdy plants nearing the stage of bloom. And soon thereafter the beautiful cotton blossoms would emerge and then change in color and gradually grow into the open boll filled to overflowing with excellent white fiber.

How I wished that I might have known something of the one who grew this cotton. One is always more interested in the grower than in the product which he grows, even though the product might be of the finest quality. But one can only speculate that the grower may have been a well-to-do planter in whose fields this bale had been produced as one among many. On the other hand, the bale might have come from a little field operated by a tenant farmer, or by a sharecropper, in which event it was one of a very few. Perchance it might have come from a field of a white grower, or it might have been grown by one whose skin was black. In either event, if it represents the major part of what was produced, and this is easily possible, then it takes on even greater significance. There is then tied up in it perhaps most of a summer's work of the grower; and, in addition, there may be in it much of the labor of some other members of his family. There is tied up in it most, if not all, of the family living. At least, there can be but little left to supply those other wants and needs which make up such a vital part of satisfactory living. The bale, then, takes on increasing importance because of what it might represent.

It is clear that there was too much cotton where this bale was grown. Growers could not use it; neither could they sell it. If, perchance, a price was offered, it was so low that the costs could not have been met. This would leave less than nothing for the grower.

At this point, the cotton mattress came to the rescue. There were those who saw possibilities in moving a surplus to a point where there was a need. In doing this, two things at least could be accomplished. The surplus could be made to disappear, and the product could be made to serve a useful purpose and fill a real need.

This is at least a portion of the story that may be gleaned from the field side of our bale. There is, however, another story that has to do with the home that is of immediate interest. This has to do with the cotton as it goes into the mattress and with those who are interested in the need which this cotton may supply. It is a real human-interest story.

In looking about the room, one could not help becoming interested in the workers. They were an impressive group. In this instance, there were some 12 to 15 workers at their tasks. Those in charge felt that they could easily have supervised a larger number.

In each case, I asked the one in charge how long the work had been in progress, and the answer was that it had just begun; but immediately the reply came, "We expect to stay until all the mattresses are made." And, remember, they served without pay.

In one case, a farmer of my acquaintance was helping with the heavier work, although he doubtless had work enough of his own; but he agreed to stay as long as he could be of service. What a spirit that is! It is indeed one not found everywhere.

I looked about the room to see who these people might be that had such an interest in this unusual project. It was found, in the main that they were elderly folk; however, there were a number of younger ones in the group. They commonly worked in pairs; more often it was husband and wife, sometimes mother and daughter or mother and son that made up the working teams. They were serious-minded folk and tremendously in earnest.

One couple particularly attracted my attention. Upon inquiry, it was found that they had already finished one mattress for themselves but they were still on the job. They had asked that they might be allowed to work until they could finish a second one which was to go to a neighbor family in distress. No one from that family could spare the time; and unless the work were done by

someone else who had a friendly interest, there would be no mattress for them; however, they had friends who are willing to help. Where, I ask you, does one find a finer spirit of helpfulness, and where would one look for a better example of a good neighbor?

The woman in charge of one of these centers pointed to a large bolt of goods from which the pieces were being cut as needed. She said that, according to specifications given them, each mattress would require a stated amount of yardage. By careful planning, she had been able to save a portion of a yard on each mattress, and the cost of the mattress would thereby be slightly lowered. She further showed that only the merest scraps of materials were thrown aside. Most of the smaller pieces were being used in making mattress handles, indicating that nothing was being wasted.

This seemed to me to be a splendid lesson in economy taught by one who, because of a lifetime of practice, was able to teach others and to teach them well. How I wish that this same lesson might be impressed upon many others!

There is ample room for advancement in this field. Too much material and time are wasted, especially when they belong to another. These people worked as though the materials were their own. They worked with a will and with a purpose.

In speaking further with the leader, she gave every indication that her heart and soul were in the task before her. As she told her simple story, I realized that here was one who was giving unstintingly of her time and her strength and even of herself. As we talked, there came over her face a radiance that seemed to me not unlike that which might be seen upon the face of a crusader. Her face showed lines that had been deeply worn by responsibility, care, and perhaps, anxiety; but with a smile that betrayed real modesty her face became wonderfully beautiful. She must have realized that she was in the service of others and that her sacrifice was appreciated.

I made inquiry about what such a mattress might mean to those at work. I was assured that for many this was to be the first and only mattress they had ever owned. Think of the happiness such an effort will bring. Some may say that mattresses, regardless of how or where or by whom they are made, have equal value. I do not share in that opinion. A mattress made by these thoughtful, earnest folk with their own hands or made by the hands of loving friends is more than a mattress. In the making, they somehow

put into their work something of themselves.

It was pointed out to them that this might easily mark the beginning of more effective community effort. It was made clear that many other things could be undertaken and in that way the spirit of cooperation could be greatly strengthened. These people, working together, were forming bonds of friendship that need never and probably will never be broken. But this is not only to be a

friendship among those within the community who were brought together through mattress making, but it should be extended to include those in the cottonfields who produce the cotton. If this could be done, it would mark a new era in the development of national unity and friendship and, above all, good will. Perhaps the lowly cotton mattress may play an important part in getting such a program under way.

Speaking of Pictures

JOHN M. RYAN, Extension Editor, South Dakota

■ South Dakota, in common with other States, has been attempting, through the use of motion pictures, both silent and sound, and color slides, to make extension meetings attractive enough to appeal to the sophisticated tastes of the modern farmer who whets his artistic appetite on a technicolor sound drama at the neighboring town double-feature movie house.

Earl Bales, visual education specialist, numbers among his equipment two 16-millimeter sound projectors which are kept for lending to county agents. The projectors are in active demand. Films are usually obtained from the United States Department of Agriculture and commercial organizations. The visual aid department also has a motion-picture camera which is used for taking South Dakota pictures; for, no matter how good the "canned" pictures are, the local product is always better. In addition, one agent has his own movie camera and three agents have projectors.

Raymond Lund, Pennington County, has taken about 1,400 feet of movies in the past 2 years. Of these, 300 feet are in color. The pictures cover 4-H Club activities and projects and water-conservation development in the Black Hills and their foothills. Mr. Lund's best word of advice for anyone going into the extension motion-picture business is to, first of all, buy a light meter. It will pay its cost in the film it saves.

James McGibney, Meade County, also has a word of advice for the extension worker who plans to take pictures. Jim says, "Don't bother with it unless you are going to develop and print your own pictures; it's too costly. By doing it yourself, the cost will be cut enough so that you will feel as if you can afford to take all the pictures you want." And no camera enthusiast was ever known to stop taking shots of a subject as long as he had plates left, which is as it should be. It is necessary to make a lot of chaff to get one good kernel.

The color slide has come into its own during the past several years, and there is nothing like slides to make the audience crane their necks in interest as the speaker points

out some lesson they show. Howard Schultz, Brule County, is a firm believer in the use of color slides. He has taken 270 of them during the past year.

His pictures cover 4-H Club projects, variety-demonstration plots, livestock, soil- and water-conservation practices, with a few miscellaneous farm practices thrown in to create interest. Mr. Schultz uses a 35-millimeter with an f 3.5 lens. He has discovered that Kodachrome can be wound on the spools that fit his camera in a dark room and that 38 or 39 pictures can be taken on one roll.

"My camera takes single-frame pictures, which means that I will get twice as many pictures from a roll of color film as I would if taken with a camera taking double frame," Agent Schultz explains. "In addition to that, I can use clear up to both ends of the roll. As cost is an important item because of a limited extension budget, I find this of great value. I find the single frame entirely satisfactory for my work, and I can make slides for as low as 8 cents each, including the cost of masks, film, slide glass, and cellulose tape."

This economy-minded extension worker has proved to his own satisfaction that pictures do arouse interest. At a meeting recently he used his projector to show pictures taken in a county variety-test plot. One variety, as shown by the pictures, was definitely superior to the others. Within the next few days, three farmers came to the office to inquire where they could obtain seed of this variety.

In the State office, Mr. Bales maintains a library of approximately 300 slides, both black and white and color, made up in sets to cover different extension projects. These pictures are mostly those which he has taken himself, but many have been collected from specialists and agents. Two projectors are available for lending to specialists and agents. They are seldom idle. Fifteen agents are equipped with their own film-strip projectors, many of which can also be used for slides.

Practically every agent in South Dakota has a still camera of one kind or another. Mr. Bales' services are constantly in demand to give advice in operating these cameras. A complete studio is maintained at the col-

lege where films may be developed and prints and enlargements made at nominal cost to the counties.

This picture-mindedness on the part of agents has allowed expansion into another closely related field—that of using pictures in local newspapers. The State office has equipment for molding newspaper mats from zinc halftones. The standing offer is that 2 to 20 mats of a picture will be supplied free of charge to any agent who will pay for making an engraving from the picture. The cost of the engraving is nominal, running from about \$1 for a one-column picture to about \$1.75 for the average three-column picture.

This allows the agent to place the same picture in all newspapers in his county the same day, eliminating any possible feeling that he might be playing favorites. Some agents, among them James Hopkins of Walworth County, have bought as many as five engravings of local pictures within the last year. There is not a single instance of a newspaper equipped with a casting box which has refused to use a mat of a local picture by an agent.

In addition to visual aids offered to extension agents, which have their origin in the camera, Mr. Bales' department each year makes available six small portable exhibits suitable for showing at county fairs and other similar events. These may be shown individually or in any combination. During 1940, the topics shown in these exhibits included kitchen improvement, sorghum-seed production, better sires, care of eggs, soil-conservation practices, and grasshopper control through tillage. The booths are 4 feet, 3 inches, by 6 feet. A station wagon is used to transport them.

Extension Summer Schools

The Agricultural and Mechanical College of Texas has arranged a summer session for extension workers, from June 9 to August 9, in three successive 3-week periods. Visiting professors in charge of special courses in agronomy, animal husbandry, dairy husbandry, poultry husbandry, and rural sociology include the following: E. A. Norton, U. S. Soil Conservation Service; Edward N. Wentworth, Armour & Co., Chicago, Ill.; Charles W. Turner, University of Missouri; V. S. Asmundson, University of California; O. H. Benson, director of rural scouting for the National Boy Scout Organization; and V. K. Brown, director of playgrounds for the Park Boards of Chicago.

Washington State College is planning a 2-week summer school for extension workers beginning June 23. Courses are scheduled in extension methods, rural sociology, farm credit, agricultural planning, and home economics.

The University of Missouri has canceled extension summer courses, scheduled from June 16 to August 8, because of national defense activities.

Does Extension Reach All Rural Groups?

According to Liberty Hyde Bailey, former dean of the New York State College of Agriculture, the Extension Service has the two-fold responsibility—"To teach those who have a desire for information and to create a desire for information in those who do not yet have the desire."

The first responsibility is comparatively easy to discharge since progressive farmers and homemakers seek information and solicit the assistance of extension agents in solving local problems. But how effective has extension work been in stimulating interest in better farm and home practices on the part of farm families in below average situations?

Data available in the Division of Field Studies and Training, based on interviews with 10,733 farm families in 17 sample areas of 16 States, indicate that on the average extension teaching has influenced 7.6 percent fewer tenant than owner families, and 12½ percent fewer families on small farms than on large farms to adopt improved farm and home practices. In 7 areas of 6 States 12.7 percent fewer farmers with only common school education were influenced to make changes, than was true of the farmers with some high school but no college training. The corresponding difference for farm homemakers in 9 areas of 8 States was 19.6 percent.

In 1936, Arkansas extension workers made 46.6 percent of their farm and home visits to tenant and sharecropper families, and 47 percent of the farm people attending meetings held by county extension agents were tenants and sharecroppers, according to a study made by Walter Cooper, Arkansas statistician.

A study of 34,933 farm families in 22 Nebraska counties made by the Works Progress Administration, shows 5 percent less tenant families than owner families reached in some measurable way by the Agricultural Extension Service (Jan. 1940 *EXTENSION SERVICE REVIEW*).

Why Some Homemakers Do Not Participate

What are some reasons for nonparticipation in home-economics extension? Six hundred and ninety-five homemakers, or 67 percent of the 1,037 homemakers visited in sampling areas of Massachusetts, Washington, South Carolina, and Indiana, were not taking part in extension activities. The reasons were basically the same in these four different sections of the country. Absence of transportation, poor health, unfamiliarity with extension activities, lack of interest in group meetings or organizations of any kind, and lack of someone to care for small children were the reasons most frequently given.

The reasons that homemakers gave showed that they think of the extension program

EXTENSION RESEARCH

Studying Our Job of Extension Teaching

only in terms of meetings. This fact suggests readjustment of teaching procedures and a better use of a variety of means and agencies, if larger numbers and all income groups are to take part in the program. It is important to have the program center around home and community problems, with emphasis upon practical and attainable solutions. More circular letters, bulletins, and news stories might help.

The Massachusetts, Washington, and South Carolina studies on participation in home economics extension are reported in *Extension Service Circulars* 271, 285, and 313, respectively. The Indiana Extension Service is publishing its study.

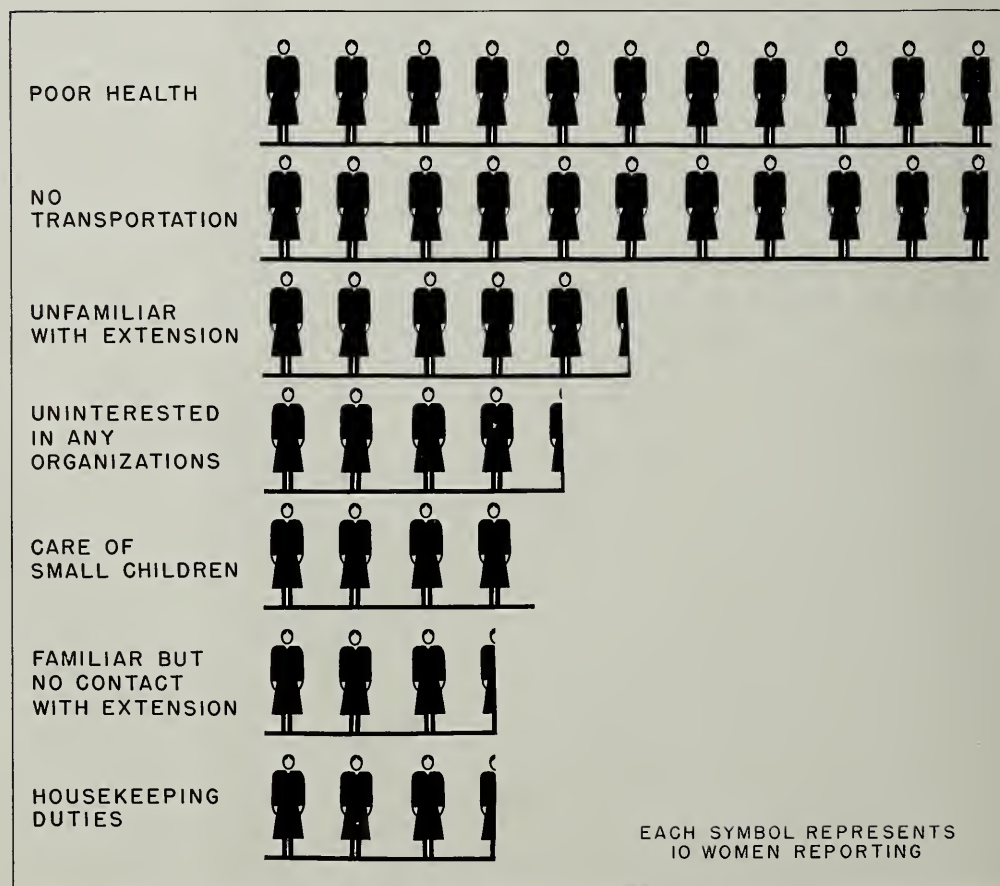
Whose Children Join 4-H Clubs?

At sometime during the decade 1930-39, 51 percent of the children of 4-H age growing up on the farms of the United States were 4-H members. In the 14 States with the lowest average agricultural income per farm family, 47 percent of the farm children were reached by 4-H Club work. In the States in the middle-income group, 60 percent, and in the 14 States with the highest average income per farm family, 52 percent of the children were 4-H members.

In the 13 Southern States, club work has been reaching 27 percent of the Negro farm children and 56 percent of the white farm children.

Studies carried on in many parts of the country and reported in the February 1938 issue of the *REVIEW* indicate that club work is reaching approximately 45 percent of the children of tenant farmers and 56 percent of the children of farm owners. Whether or not boys and girls join 4-H Clubs is influenced more by the education of their parents and the extent to which their parents participate in community activities than by the economic standing of the family.

Number of Women Reporting Reasons for Not Participating in Extension Activities¹



¹This pictograph shows the results of studies made of 695 homemakers in selected areas of Mas-

sachusetts, Washington, South Carolina, and Indiana.

Building Health With Vitamins

■ America has been shocked by recent evidence of widespread malnutrition. The unexpectedly large number of young men who have been rejected by medical examiners under the Army conscription program because of physical defects has centered public attention on something that nutrition specialists have been talking about for a number of years—the fact that a great part of our population suffers from malnutrition and that this condition is not restricted to low-income groups. Some people with an abundance of food are slowly starving to death.

Although this malnutrition is not strictly a modern malady, it has been intensified by the development of food production and processing practices which have removed many people from direct contact with the source of food supply and which unwittingly have diminished or removed certain essential chemical compounds from many basic food products. To remedy the situation, the combined efforts of food producers, processors, and marketing agencies will be needed—all actively employing the latest knowledge concerning nutrition. Supplementing their efforts must be a widespread educational campaign to acquaint the people of America with the nutritional requirements of their bodies and the ways to meet those requirements.

Such a view of the Nation's nutrition problem was presented to extension workers attending a regional conference in Omaha, Nebr., in early February by Dr. J. S. Hughes, biochemist from Kansas State College.

Veteran of a quarter-century of research in the field of nutrition, Dr. Hughes is an authority on vitamins. These, he pointed out, are among the newest nutritional discoveries. A half-century ago, nutrition authorities emphasized the body's protein and energy requirements and branded it foolish for a person of moderate income to spend money for products with such low calorie yield as milk, eggs, and fruit. Scarce money, they maintained, should be spent for grains, rice, potatoes—products with a high calorie yield per unit of cost.

There was at that time no knowledge of the importance of vitamins and many minerals contained in the very foods that were low in calorie yield. The word "vitamin" was not coined until 1910; and a vitamin was first isolated as a pure chemical compound only about 10 years ago. Progress since then has been almost unbelievable, for Dr. Hughes displayed bottles containing small quantities of 10 different vitamins in pure form and outlined the functions of each together with symptoms of its deficiency.

Vitamins, he explained, are tools needed by living cells to properly perform their functions of life, growth, and reproduction. Vitamins are produced in abundance in young, vigorously growing, green plants; and animals depend upon plants to obtain most of their vitamin requirements. People, in turn, obtain their vitamins by eating the animals or eating the plants.

The diets of many people are deficient in one or more of these essential chemical compounds, he declared. Constipation is often a symptom of general vitamin deficiency, and constipation is a widespread ailment in this country. Bleeding gums and a tendency to develop black and blue spots from slight bruises are evidences of a shortage of vitamin C. Some nervous disorders in growing animals and "night blindness" in human beings have been traced to a shortage of vitamin A. This compound also is essential for proper reproductive functions and affects the formation of tooth structures. Vitamin B₁ or thiamin, the enzyme needed to oxidize sugars, also is essential for proper functioning of the nervous system. Vitamin D, which is formed in the body under exposure to direct sunlight, serves to prevent rickets. A shortage of nicotinic acid contributes to the development of pellagra, and administration of this compound to pellagra sufferers often brings amazingly rapid improvement. Riboflavin is needed for normal nerve functioning and also affects the condition of the membranes of the lips and the blood vessels of the eyes.

Deficiencies of these vitamins occur in the daily diet of many people because modern civilization has placed man in much the same situation as cattle on feed in a dry lot. Such cattle, receiving only the chemical compounds that are found in fodder, hay, and processed feeds, seldom develop the "bloom" which is characteristic of livestock on good pasture. Few people are in the "pink" of condition, because they likewise fail to obtain sufficient quantities of certain essential chemical compounds.

Two methods for remedying vitamin deficiencies are possible. One is to include in the diet the necessary amounts of vitamins in pure form as they are manufactured by some chemical companies. The other is to choose a diet of foods that are naturally sufficiently rich in vitamins to supply all the bodily needs. The latter method is the more desirable, not only because it is economical but also because there probably are several vitamins which have not yet been isolated and synthesized; and these as yet unknown compounds are likely to be obtained from foods that also are rich in the known vitamins.

Green, leafy vegetables are usually rich in vitamins; and the production of a good home garden is, therefore, a desirable measure for insuring adequate supplies of these essential compounds in the farm family diet. Some native plants, often used for "greens" by pioneer mothers, are even richer sources of these compounds than are some highly prized modern vegetable varieties. Dandelion plants, for example, are about 15 times as valuable in vitamin A potency and 3 times as valuable in vitamin C as are good varieties of leaf lettuce. Lambsquarter is 10 times as valuable as lettuce in vitamin A potency. The young plants of cereal grains are extremely rich in vitamins up until the time they reach the first jointing stage, and farm families could well utilize the green leaves of these vigorously growing plants for a part of the diet. An acre of wheat could easily provide enough vitamins for 100 people and still produce a satisfactory yield of grain, Dr. Hughes commented.

Vitamin-Rich Foods

Vitamin-rich foods that might be added to the diet during those seasons when fresh vegetables and other "greens" are not available include wheat germ, brewer's yeast, and liver.

Vitamins alone will not solve the problem of malnutrition, but increased attention to vitamins will undoubtedly remedy a great many common ills and bring about noticeable improvement in the general health of the Nation. A great deal of work along varied lines will be needed. Experiment stations, for example, have just begun work on the very important problem of developing suitable crop and garden plants to supply these nutritive requirements. Vitamin values have been largely overlooked in the development of new varieties in past years. Similarly, harvesting practices now in use have been developed on the basis of the calorie content or total digestible nutrients of the crops. The calorie count is highest about the time the plant ripens, and vitamins have then practically disappeared. One big problem facing agriculture today is to so change its methods as to conserve the vitamin value of a part of the crop.

New developments in food marketing and processing likewise will be needed to insure an adequate vitamin supply in the American diet, the present program for vitamin enrichment of flour and bread being a hint as to the shape of things to come. It is not likely that these new developments will bring about synthetic food pills that will make farm food production unnecessary. Calories so far cannot be so compressed. "Vitamins may be taken in pills, but energy cannot," comments Dr. Hughes. "An average individual doing average work must have at least 1½ pounds of food per day, dry weight, to fill his energy requirements."

Get in With a Gadget

**VERNETTA FAIRBAIRN, Home Demonstration Agent,
Butler County, Kans.**

■ How can we reach the low-income groups? How can we "bridge the gap" between the agent and the low-income family? Until the agent has talked and worked with the family, none will deny that the gap is there. It is the grievance of the "have nots" against the "haves."

One of the rules of good salesmanship as set forth by a nationally known sales expert is "Get in with a gadget," or the display of a curiosity-arousing visual exhibit which will "purchase time" for an interview for you. That principle works in selling ideas and information as well as commodities. The "gadget" may be a bucket shower-bath exhibit, some home-made breakfast cereal, or a home-made baby bed; but it is a smart agent who keeps her "bag o' tricks" well supplied with curiosity-arousing exhibits.

The Government has given us an excellent "gadget" to reach low-income families, in the offer of the cotton-mattress program. After a day spent in the mattress work center, the gap between the agent and the low-income family is bridged. The families feel that the agent is a friend and truly interested in their problems and welfare, and the agent is enriched in viewpoint from her contact with them. In the parlance of the salesman, the cotton-mattress program lets the agent "get one foot in the door." Whether she gets all the way in will depend on her and her salesmanship ability.

Here in Butler County, we are "following through" on the cotton-mattress and cotton-comfort project with an exhibit on mattress covers, comfort protectors, and even a home-made bed. As the women meet to make their cotton comforts, it is our opportunity to give them instruction in better bedding and care of bedding. Just this last week here in Butler County, several women who came to the mattress center to make a mattress joined a farm bureau unit. Evidently, they liked the sample of home demonstration work which they got there and decided to come in and have a whole meal.

It seems to me that the very core of the problem of reaching low-income groups is embodied in a statement that all extension agents have heard once or twice before, "Build a program based on their needs."

I remember that when I was in college our clothing class was working on a clothing budget for a college girl, and it was the conclusion of the class and the teacher that a girl could not dress respectably on less than \$100 a year. Now that was more money than I had to pay all expenses that semester. I did not have the courage to speak up and say: "I'm going to have to live and pay all

expenses this semester on less than a hundred dollars; make out a clothing budget for me on that basis." But mentally I withdrew from any clothing program that class had to offer. They did not speak my language.

Do not we extension agents often unconsciously shut people out of the program in just the same way? How much "pruning" would we do to the program we offer if every agent could exchange places for 1 week out of every year with the farm homemaker who has \$500 cash to spend for all family needs. What kind of a clothing program would we offer if we always remembered that the average Kansas farm homemaker spends approximately \$35 a year on clothing.

I was fortunate in "inheriting" a county in which the home demonstration program does reach low-income groups. A cross section of the 700 members enrolled in the 34 home demonstration units shows FSA borrowers singing in the county farm bureau chorus, participating in the county style revue modeling their home-made garments, serving as local leaders, going to mothers' vacation camp, attending farm and home week at the college, and working side by side in the program with rather large-scale farm operators.

Another rule of the sales expert is "Say it with scenery." Here in Butler County, we three extension agents have found color pictures of local people and their achievements an effective way to "say it with scenery."

Last year 54 farm homemakers from 30 communities of the county agreed to keep garden records showing the cost and value of the garden and the hours of labor spent on it. A summary of their records shows that the average garden was worth \$92.04 and that for every hour they spent gardening they reaped a profit of \$1.92. Throughout the summer we took color pictures of successful gardens, showing gardens protected by windbreaks, subirrigation systems, recommended varieties, etc.

These pictures in color have been in demand for many community meetings and have been the gadget by means of which we can give instruction and inspiration for producing better living at home. On the same program with these we have shown a comedy in technicolor, but we have noticed that the people are more interested in seeing their neighbor in technicolor than they are in seeing some of the movie stars or Mickey Mouse.

Low-income families do not have the means of transportation to go long distances, and so the agent most successful in working with low-income families will plan many local

community meetings to take the place of large county-wide meetings. Our experience has shown that many local garden tours are more successful than one big county-wide garden tour, and more local community achievement days rather than one big county achievement day.

In conclusion, the four points we have tried to make are:

1. "Get in with a gadget" (use curiosity-arousing exhibits).
2. Build a program that will fit their needs.
3. Say it with scenery, such as color pictures of local people.
4. Take the program out to the local community.

Study Flag History

Our flag—its code, history, uses—will be studied by hundreds of Kansas farm homemakers in their "Citizenship" programs this year.

Because the home demonstration club members wanted to understand more fully their place in government and its workings as it applies to women citizens, the "Citizenship" program was organized last year. Each unit planned its own program, and many groups invited public officials to speak at their meetings. Legislators, doctors, merchants, lawyers, county commissioners, county school superintendents, district school board members, health nurses, and city officials appeared on these programs and told of their work.

In Rice County, doctors spoke on the prevention of contagious diseases among children. A superintendent of city schools discussed the citizen's responsibility for an adequate school system. Three units in Morris County decided the meetings were so helpful that they voted to hold them in the evening so the husbands could also attend.

A citizenship requirement has been added to the State standard of excellence list for 1941.

ON THE CALENDAR

Seventy-fifth Anniversary, University of New Hampshire, with National, Regional, and State Associations Cooperating, Durham, N. H., June 17-27.

American Association for the Advancement of Science, Durham, N. H., June 23-27.

National AAA Annual Conference to Consider the 1942 Program, Washington, D. C., June 10-13.

National 4-H Club Camp, Washington, D. C., June 18-25.

American Home Economics Association Annual Meeting, Chicago, Ill., June 22-26.

American Dairy Science Association Annual Meeting, University of Vermont, Burlington, Vt., June 23-27.

National Dairy Council Annual Summer Conference, Chicago, Ill., June 26-28.

American Association of Agricultural College Editors, Kingston, R. I., July 13-19.

IN BRIEF

Farmers Plan for Youth

Healthful hot lunches are now being served to 90 school children of Washington County, Colo., as the result of the activity of the Lindon community agricultural planning committee and members of the school board. Following a survey of health conditions in the community, lunches for both grade and high-school children have been sponsored by the planning committee and the Work Projects Administration.

Twelve men in the Lindon community have volunteered to help erect an adobe recreation and community building which the committee has planned to construct for the young people.

In-Service Training

The University of Kentucky announces summer training courses to be given for in-service extension workers in three consecutive 2-week periods running from June 16 to August 6. Staff-member offerings include: Animal industry, three courses in farm engineering, an advanced course in soil management which includes a 5-day field trip, and work of special interest to home agents; namely, landscape gardening, and a course involving a study of current problems in nutrition.

Cordwood Buys 4-H Calf

The cattlemen of Stevens County, Wash., have long been proud of the purebred animals that graze in their mountain and valley meadows and win blue ribbons in show rings throughout the Northwest.

Now members of Stevens County 4-H Clubs are showing that they are not only determined to carry on the tradition of purebred cattle but are displaying a true western self-reliance in achieving their objectives.

Early last year the Williams Valley 4-H Beef Club in Stevens County decided to organize a perpetual calf club. Money won by members in various fairs was pooled and a purebred Aberdeen-Angus heifer purchased. A special committee from the Williams Valley Grange assisted by County Extension Agent A. K. Millay set about determining the member of the club with the most outstanding record who did not already own a purebred animal. Thomas Lee Chandler was selected and presented with the calf.

Members of the club, however, decided that they needed still another calf. Their funds would not cover the purchase price and they did not want to ask for help. Finally their

leader, H. H. Lenhard, and several parents and other interested parties got together and worked out a plan.

The club members were given permission to go onto several tracts of standing timber and cut cordwood. Axes, shouts, and laughter rang together as the club members went to work. Soon the cordwood was cut and piled ready for marketing. A buyer was found, and the proceeds of the sale were used to buy a second purebred beef calf. This one was awarded to James Justice.

Later in the year the club members found they needed an electric clipper properly to prepare their animals for the show rings on the fair circuit. Back to the wood lots they went, down came more trees, and soon the treasury contained the \$16 needed to buy the clipper.

Members who receive the purebred calves sign agreements that the first purebred calf they raise is to be registered and returned to the club for a continuance of the program which started with the turning of cordwood into beef cattle.

Double Sorghum Production

During the past year, Colorado farmers produced double the amount of grain and forage sorghums they grew in 1939.

Five million bushels of grain sorghums were harvested in 1940, compared with 2,363,000 bushels in 1939. Farmers and ranchmen harvested 342,900 tons of forage sorghums this past year, compared with 190,500 tons the previous year.

The Colorado State College Experiment Station has cooperated with the United States Dry Land Field Station at Akron, Colo., in conducting tests which have shown sorghums to be better adapted to eastern Colorado conditions than corn. County extension agents and other representatives of the college extension service have cooperated with farmers in demonstrating the value of sorghums.

AMONG OURSELVES

■ RANSOM ASA MOORE, widely known among extension and research workers and teachers of agronomy throughout the country, died recently at his home in Wisconsin.

In 1895, Dean William A. Henry, who was then engaged in the great task of developing the College of Agriculture, decided that Mr. Moore was the man he needed to aid him in the herculean tasks he had assumed. He induced Mr. Moore to join him under the title of assistant to the dean and directed his efforts to the reorganization of the short course. With his unusual energy and zeal, Mr. Moore traveled by bicycle and by horse and buggy from farm to farm in Dane and neighboring counties, appealing to fathers and mothers to send their boys to college. He expanded such personal contacts by attending fairs throughout the State with an exhibit of what the short course had to offer. Soon this phase of the work of the College of Agriculture became an outstanding enterprise in agricultural education in the State and Nation, and such it is to this very day.

Mr. Moore viewed life and its problems in terms of their stern realities. It was the need for new opportunities for the rural youth of Wisconsin that led him to become the first plant breeder of his State. And this was not an easy undertaking. Inspired by the work of that pioneer plant breeder at the University of Minnesota, Willett M. Hays, Mr. Moore urged upon Dean Henry the necessity for such research at Wisconsin. Without funds, the dean could offer little encouragement; but, under a persuasive persistence, 1 acre of land was allotted for Mr. Moore's grain-breeding work in 1898. Not dismayed by limitations of funds or labor, Mr. Moore established the first grain-breeding nursery in this State; and such was the beginning of a development which made the man and the grains he produced world famous.

■ DR. JANE S. McKIMMON, North Carolina assistant extension director, and one of the pioneer State home demonstration agents in the United States, was named by the Progressive Farmer magazine as North Carolina's "Woman of the Year" in agriculture for 1940. In announcing the honor, the magazine said of Dr. McKimmon: "With almost fanatical zeal she has tried to bring to country women some of the things she found lacking as she traveled by buggy over muddy roads back in farmers' institute days. But, along with her ideals, she had the ability for organization, an understanding of human nature, a great patience, a rugged determination and a big heart. . . ."

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U. S. DEPARTMENT OF AGRICULTURE

DEFENSE

the Farming West



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Defense on the farm front.



Stabilizing beef—cattle numbers seems advisable.



-- better nutrition and health levels.